



# State of Utah

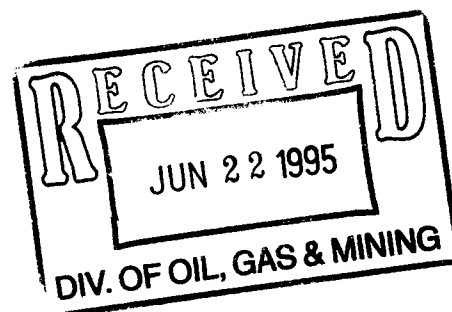
## DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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June 15, 1995

### **CERTIFIED MAIL (Return Receipt Requested)**

Mr. Ed King  
Jumbo Mining Company  
6305 Fern Spring Cove  
Austin, TX 78730

RE: May 26, 1995 Work Plan for Ground  
Water Sampling

Dear Mr. King:

We have reviewed your work plan for obtaining samples from the perched aquifer at the Drum Mine site, which was found to have cyanide and metals contamination in 1991. The presence of cyanide in the ground water indicates that the contamination resulted from leaching activities at the mine site. Because of the limited area of the perched aquifer, it is likely that a significant portion of the discharge that caused this contamination was released into the vadose zone above the regional aquifer which is located more than 1000 feet under the site. The Division of Water Quality has an interest in the perched aquifer, mainly because it reveals that a discharge has taken place, and it is in a location where sampling and corrective action are possible. Our main concern is the discharge of contaminants to a location where they may affect water quality in the regional aquifer. We acknowledge that investigation and remediation of contamination in this aquifer would be very difficult because of its great depth. We also feel a more cost-effective effort to minimize damage to this ground water resource is to focus on ceasing discharges of contaminants. Inspections of the mine site earlier this year showed that discharges of contaminants are still taking place, primarily because of inadequate design and deterioration of leach pad liners and pipelines. This situation has gotten worse over the past several years because Jumbo has neither properly closed the pads nor re-stacked the ore on adequately-designed new pads.



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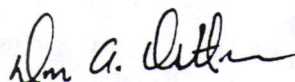
Accordingly, while we do have an interest in the perched aquifer and encourage you to do appropriate investigation and remediation activities at that location, you should immediately begin planning for whatever actions are needed to stop the discharge from the existing leach pads and pipelines. From what we know of the situation, proper capping of the heaps to minimize discharges to the subsurface or re-stacking the ore on new, permitted pads seem to be feasible means to reach this goal. We have not taken formal enforcement actions yet, however, the need to consider this option is becoming increasingly important as time goes on and no satisfactory progress occurs in stopping the discharge.

Regarding your proposed sampling plan, while it can produce some information to evaluate contamination of the perched aquifer and guide remediation activities, some uncertainty would still exist in interpreting the results of the sampling because the proposed sample points are only open holes and not adequately-constructed monitor wells. Also, to obtain a better understanding as to whether contamination still exists at the site, analysis should also be performed for total dissolved solids, chloride, and nitrate, a breakdown product of cyanide.

Within 90 days of receipt of this letter, we request that you submit a conceptual plan and timetable for stopping the discharge from the existing leach pads and pipelines, and remediation of the perched aquifer if sampling shows any contaminants present in concentrations exceeding the ground water quality standards in Table 1 of the Ground Water Protection Regulations, UAC R317-6. You are reminded that if your plan involves re-stacking the ore on new pads you must obtain a ground water discharge permit from this Division before construction may begin.

Please contact Mark Novak of this office if you have any questions.

Sincerely,



Don A. Ostler, P.E.  
Director

DAO:MN:wfm

cc: Central Utah Health Dept.  
Dave Hartshorn, Drum Mine  
Rody Cox, BLM Fillmore Office  
Wayne Hedberg, DOGM